

# PATENT ABSTRACTS OF JAPAN

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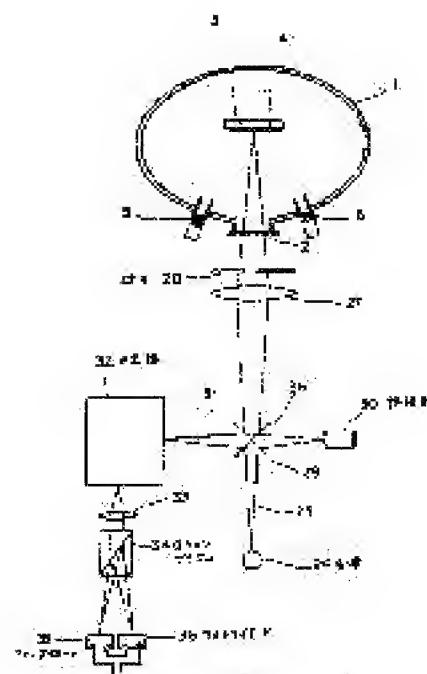
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## (54) CRYSTAL GROWTH MONITORING DEVICE

(57) Abstract:

**PURPOSE:** To constitute a stable and simple monitor device of growth process applicable to any crystal growth method by making constitution not to carry out rotation of polarizer and modulation of plane of polarization by a modulator.

**CONSTITUTION:** In a device of monitoring growth state of crystal to be subjected to epitaxial growth on substrate crystal 4 placed on a vacuum container 1, the following constitution is adopted. Namely, the device is equipped with a light ray source system 24 to irradiate the growth surface of the crystal with nonpolarized light ray 25 from a window 2 in the vacuum container 1, a spectral means (spectroscope) 32 to make reflected light from crystal surface into homogeneous light, a



polarizing means 34 to separate the homogeneous light into two different polarized light components, two light detecting means (photodiode) 35 and 36 to detect one and the other of the above-mentioned two polarized lights and to output electrical signals and a DC amplifying means 37 to output difference signal of output signal of the two light detecting means 35 and 36.

